

**WHAT IS CLAIMED IS:**

1. A photosensitive resin composition for a color filter comprising:

a) 5 to 30wt% of a binder soluble in an alkaline solution;

b) 5 to 30wt% of a crosslinking monomer having at least two ethylene double bonds;

c) 10 to 60wt% of pigment;

d) 1 to 5wt% of one or more photopolymerization initiators selected from the group consisting of an acetophenone compound, a xanthone compound, a benzoin compound, and an imidazole compound;

e) 0.1 to 2wt% of one or more lower layer hardeners selected from the group consisting of a silane polymer, and an ethylene monomer having at least one epoxy group or oligomer thereof; and

f) 20 to 80wt% of a solvent.

2. The photosensitive resin composition for a color filter according to Claim 1, wherein the binder soluble in an alkaline solution is a copolymer of 10 to 40wt% of monomers having ethylene acidic groups and 60 to 90wt% of

monomers having no ethylene acidic group.

3. The photosensitive resin composition for a color filter according to Claim 2, wherein the monomers having ethylene acidic groups are selected from the group consisting of acrylic acid, methacrylic acid, itaconic acid, maleic acid, fumaric acid, vinyl acetic acid, and acid anhydrides thereof, and 2-acryloxyethylhydrogen phthalate, 2-acryloxypropylhydrogen phthalate, and 2-acryloxypropylhexahydrogen phthalate

4. The photosensitive resin composition for a color filter according to Claim 2, wherein the monomers having no ethylene acidic group are selected from the group consisting of isobutyl acrylate, *tert*-butyl acrylate, lauryl acrylate, alkyl acrylate, stearyl acrylate, cyclohexyl acrylate, isobornyl acrylate, benzyl acrylate, 2-hydroxy acrylate, trimethoxybutyl acrylate, ethylcarbidiol acrylate, phenoxyethyl acrylate, 4-hydroxybutyl acrylate, phenoxypropyl acrylate, 2-hydroxyethyl acrylate, 2-hydroxypropyl acrylate, 2-acryloxyethyl-2-hydroxypropyl phthalate, 2-hydroxy-3-phenoxypropyl acrylate, and methacrylates thereof; acrylates having a halogen atom and methacrylates

thereof; acrylates having a siloxane group and methacrylates thereof; and aromatic olefins.

5. The photosensitive resin composition for a color filter according to Claim 1, wherein the crosslinking monomer having at least two ethylene double bonds is one or more compounds selected from the group consisting of 1,4-butanediol diacrylate, 1,3-buteneglycol diacrylate, ethyleneglycol diacrylate, pentaerythritol tetraacrylate, triethyleneglycol diacrylate, polyethyleneglycol diacrylate, dipentaerythritol diacrylate, sorbitol triacrylate, bisphenol A diacrylate derivatives, trimethylpropane triacrylate, dipentaerythritolpolyacrylate, and methacrylates thereof.

6. The photosensitive resin composition for a color filter according to Claim 1, wherein the pigment is an organic pigment or an inorganic pigment.

7. The photosensitive resin composition for a color filter according to Claim 1, wherein the solvent is one or more compounds selected from the group consisting of ethyleneglycol monomethyl ether acetate, propyleneglycol monomethyl ether, propyleneglycol methyl ether acetate, propyleneglycol

monoethyl ether acetate, diethyleneglycol dimethyl ether, diethyleneglycol methylethyl ether, cyclohexanone, 3-methoxyethyl propionate, 3-ethoxymethyl propionate, and 3-ethoxyethyl propionate.

8. The photosensitive resin composition for a color filter according to Claim 1, wherein the ethylene monomer having at least one epoxy group or oligomer thereof is one or more compounds selected from the group consisting of glycidyl acrylate, glycidyl methacrylate, glycidylethyl acrylate, glycidylethyl methacrylate, glycidylpropyl acrylate, glycidylpropyl methacrylate, 3,4-epoxybutyl methacrylate, 6,7-epoxybutyl acrylate, and oligomers thereof.

9. The photosensitive resin composition for a color filter according to Claim 1, which further comprises:

g) 0.01 to 1wt% of a disperser for improving dispersion of the pigment and an additive for improving coatability, which is one or more compounds selected from the group consisting of a polyester disperser, a polyurethane disperser, a silicon surfactant, and a fluorine surfactant.

10. The photosensitive resin composition for a color filter according to

Claim 1, whose developing  $\gamma$ -value is 0.1 to 2.5.

11. A double-layer pattern formation method using a slit mask, wherein the photosensitive resin composition for a color filter according to Claim 1 is exposed and developed with the slit mask.

12. A double-layer pattern formation method using a slit mask according to Claim 11, wherein the slit mask has a slit pattern wherein the width of the light-passing portion (WL) is 1 to 100 $\mu$ m in x- and y-axes.

13. A double-layer pattern formation method using a slit mask according to Claim 11, wherein the slit mask has a slit pattern wherein the width of the light-blocked portion (BS) is 1 to 100 $\mu$ m in x- and y-axes.

14. A double-layer pattern formation method using a slit mask according to Claim 11, wherein the slit mask has a lattice pattern wherein the width of the light-passing portion (WL) is 1 to 100 $\mu$ m in x- and y-axes.

15. A double-layer pattern formation method using a slit mask according to Claim 11, wherein the slit mask has a lattice pattern wherein the width of the light-blocked portion (BS) is 1 to 100 $\mu$ m in x- and y-axes.